

Will the broadcast flag interfere with consumers ability to make copies of DTV content for their personal use, either on personal video recorders or removable media?

In order for the broadcast flag to not interfere with personal use, the device used must be able to correctly detect and react to a broadcast flag. To this there are two solutions. First, only hardware devices specifically designed for this purpose are allowed to detect the flag. This means that a user must purchase an additional special device, and the use of all existing hardware and software is rendered useless. This would effectively limit the personal use of persons of limited financial means. This approach is, however, not feasible as any "flag" small enough and uncomplicated enough to broadcast, can be detected in software (i.e., will not *require* a hardware solution). The second method, then is to allow software to detect the flags and react appropriately. This, of course, then means that either (a) only licensed software can do so; or (b) anybody can write software to detect the flag. In either of these later two cases, the situation would be unchanged from the existing situation. If software can detect and react accordingly, someone will figure out how to program a computer to detect it.

In sum, A hardware solution might well discriminate against economically disadvantaged AND not be feasible (complexity requiring a hardware solution cannot be broadcast) AND any software solution will not have remain effective longer than several months.

Would the digital flag interfere with consumers ability to send DTV content across networks, such as home digital networks connecting digital set top boxes, digital recorders, digital servers and digital display devices? With legally approved and sold devices and operating systems, the impact may be minimal. BUT any system of protection that requires such legal licensing will make it impossible for all of the other, non-commercial operating systems (e.g., FreeBSD, GNU/Linux, MiniX, etc.) to access and send such medium. So, this would serve only to limit competition in the software industry, further the monopoly of existing large companies. IF such flags are flexible enough that non-commercial systems can develop the appropriate manipulation software, then the protection will not effectively eliminate unapproved content manipulation.

Would the broadcast flag requirement limit consumers ability to use their existing electronic equipment (equipment not built to look for the flag) or make it difficult to use older components with new equipment that is compliant with the broadcast flag standard?

The answer to this is either yes it must or it will not be effective protection. See the answer to Question 1 for more information on this issue.

Would a broadcast flag requirement limit the development of future equipment providing consumers with new options?

The flag will limit to some degree what can be created by the traditional "american inventor", working on a low- to no-cost-basis in his/her basement. More seriously, the flag, and thus any electronic protection thereof will continue to exist as long as the content exist, while legal protection (currently) of content is temporal and spatially limited. The protection grants de facto more power and control to the owner of the content than allowed by law.

What will be the cost impact, if any, that a broadcast flag requirement

would have on consumer electronics equipment?

If the flag is to be effective (which has not been demonstrated), the decoding must be in a form of tradeseecret "black box". That is, a hardware solution, whose exact constuction is protected via obfuscation. If the solution is software-based, then any sufficantly competant programmer can circumvent the solution (See DeCSS, the current Audio Watermark, and other such similar issues for historical comparison), and thereby be ineffective.

Sadly, any security-thru-obscurity of a hardware solution will eliminate (or greatly hamper) the independent inventor from any innovation in this field. Either said inventor will not have the knowledge or resources to overcome or duplicate the hardware solution, or laws (such as DMCA) will make such circumvention for innovation illegal.

Other Comments:

I urge the FCC to reconsider the following issues: What gave rise to the desire for a broadcast flag? Other than a simple request from a content vendor, are there valid scientific studies demonstrating that there is indeed a problem to be solved?

Is the solution (protection for eternity) enough to solve the problem or is it too much? Will the solution eliminate or cripple effective competition and innovation?